

AMENDMENTS TO THE CLAIMS

1-34. (Cancelled)

35-50. (Not entered)

51. (new) A transgenic plant comprising a nucleic acid encoding a microbial β -1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear or plastid genome of the plant and is under the control of a promoter active in a plant, wherein the promoter determines a spatial or temporal expression pattern for the microbial β -1,4-endoglucanase.

52. (new) The transgenic plant of claim 51, wherein the microbial β -1,4-endoglucanase is from a *Thermomonospora* bacterium.

53. (new) The transgenic plant of claim 51, wherein the microbial β -1,4-endoglucanase is thermostable.

54. (new) The transgenic plant of claim 52, where in the microbial β -1,4-endoglucanase is from *T. fusca*.

55. (new) A transgenic plant comprising a nucleic acid encoding a microbial β -1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear or plastid genome of the plant and is under the control of a promoter active in a plant, wherein the promoter is a wound inducible or a chemically-inducible promoter.

56. (new) A transgenic seed comprising a nucleic acid encoding a microbial β -1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear or plastid genome of the plant and is under the control of a promoter active in a plant, wherein the promoter determines a spatial or temporal expression pattern for the microbial β -1,4-endoglucanase.

57. (new) A transgenic plant comprising a nucleic acid encoding a microbial β -1,4-endoglucanase (EC 3.2.1.4) and a targeting sequence, wherein the nucleic acid is stably integrated into a nuclear or plastid genome of the plant and is under control of a promoter active in a plant.
58. (new) The transgenic plant of claim 57, wherein the promoter determines a spatial or temporal expression pattern for the microbial β -1,4-endoglucanase.
59. (new) The transgenic plant of claim 57, wherein the promoter is a wound inducible or chemically inducible promoter.
60. (new) The transgenic plant of claim 57, wherein the microbial β -1,4-endoglucanase is from a *Thermomonospora* bacterium.
61. (new) The transgenic plant of claim 57, wherein the microbial β -1,4-endoglucanase is thermostable.
62. (new) The transgenic plant of claim 60, wherein the microbial β -1,4-endoglucanase is from *T. fusca*.
63. (new) The transgenic plant of claim 57, wherein the targeting sequence targets the microbial β -1,4-endoglucanase to a compartment selected from the group consisting of vacuole, chloroplast, mitochondria, peroxisome, ER, apoplast, and extracellular secretion from aleurone cells.
64. (new) A transgenic seed comprising a nucleic acid encoding a microbial β -1,4-endoglucanase (EC 3.2.1.4) and a targeting sequence, wherein the nucleic acid is stably integrated into a nuclear or plastid genome of the plant and is under control of a promoter active in a plant.

65. (new) The transgenic seed of claim 64, wherein the targeting sequence targets the microbial β -1,4-endoglucanase to a compartment selected from the group consisting of vacuole, chloroplast, mitochondria, peroxisome, ER, apoplast, and extracellular secretion from aleurone cells.